

Challenges Faced During Jenkins Installation and Configuration

Challenge 1: Java Not Installed on the Puppet Agent

- Jenkins requires Java to run
- Initial Jenkins installation failed because Java was missing
- Jenkins service could not start without Java

```
[root@agent01 ~]# java
bash: java: command not found...
[root@agent01 ~]#
[root@agent01 ~]# rpm -qa|grep -i java
[root@agent01 ~]#
[root@agent01 ~]# yum install java
Last metadata expiration check: 6:54:25 ago on Sat 03 Jan 2026 12:31:09 PM.
No match for argument: java
Error: Unable to find a match: java
[root@agent01 ~]#
```

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Resolution : Java Installed on the Puppet Agent

- Identified Adoptium/OpenJDK as the recommended Java provider on https://adoptium.net/installation/linux/#_centosrhelfedora_instructions website
- Added Adoptium repository in Puppet Agent
- Installed java-21-openjdk

```
[root@agent01 ~]# cat <<EOF > /etc/yum.repos.d/adoptium.repo
[Adoptium]
name=Adoptium
baseurl=https://packages.adoptium.net/artifactory/rpm/rhel/\$releasever/\$basearch
enabled=1
gpgcheck=1
gpgkey=https://packages.adoptium.net/artifactory/api/gpg/key/public
EOF
[root@agent01 ~]#
[root@agent01 ~]# yum install java-21-openjdk
Adoptium
Dependencies resolved.
=====
      Package           Architecture   Version        Repository  Size
=====
Installing:
  temurin-21-jdk      x86_64        21.0.9.0.0.10-0  Adoptium    165 M

Transaction Summary
=====
Install  1 Package

Total download size: 165 M
Installed size: 344 M
Is this ok [y/N]: y
```

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Challenge 2: Puppet Syntax Error

- Puppet agent run failed with a syntax error
- Jenkins installation did not complete

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Resolution : Puppet Syntax Error

- Used puppet parser validate to check syntax
- Identified incorrect Puppet code formatting